

a power feeding switching circuit for setting an amount of current to be supplied to a processing circuit conducting processing for data transfer, based on a result of determination made by the power source determination circuit; and

a clock switching circuit for setting operation clocks for the processing circuit according to a result of determination made by the power determination circuit,

wherein a data transfer rate is set according to the type of power source.

Please add the following new claims:

7. An interface circuit for USB data transfer, comprising:

a power source determination means for determining a type of power source;

AB
cmk
a power switching means for switching between a proper amount of current to be supplied to a processing circuit conducting processing for data transfer, based on a result of determination made by the power source determination means; and

a clock switching means for setting operation clocks for the processing circuit according to a result of determination made by the power determination means, wherein a data transfer rate is set according to the type of power source.

8. The interface circuit according to claim 7, wherein the power source determination means determines whether an external power source is connected, and

when it is determined that an external power source is connected, the power switching means increases the amount of current and

the clock switching means sets a faster clock, so that high speed data transfer is carried out, and

when it is determined that no external power source is connected, the power switching means causes to reduce the amount of current and the clock switching means sets a slower clock, so that slow speed data transfer is carried out.

9. The interface circuit according to claim 8, wherein the interface circuit operates as a USB ver. 2.0 interface circuit when an external power source is connected, and operates as a USB ver. 1.1 interface circuit when no external power source is connected.

A3 only
10. The interface circuit according to claim 9, wherein the interface circuit is registered as a USB ver. 2.0 interface circuit in a computer connected thereto when an external power source is connected, and as a ver. 1.1 interface circuit when no external source is connected.

11. A disk drive apparatus comprising the interface circuit according to claim 1, for writing data supplied from a computer onto a recording disk

12. The disk drive apparatus according to claim 5, wherein the disk drive apparatus sends the computer data concerning a data transfer rate at a time of resetting of the interface circuit.

13. The interface circuit according to claim 1 further comprising a power source circuit having a DC/DC converter.

14. The interface circuit according to claim 7 further comprising a power source circuit having a DC/DC converter.

15. The interface circuit according to claim 13, wherein the power source circuit outputs three levels of power selected from the group consisting of 2.5V, 3.3V and 5.0V.

16. The interface circuit according to claim 14, wherein the power source circuit outputs three levels of power selected from the group consisting of 2.5V, 3.3V and 5.0V.

17. A method for determining a rate of data transfer comprising:

determining a type of power source;

setting an amount of current to be supplied to a processing circuit conducting processing for data transfer, based on a result of the determination of the type of power source; and

setting operation clocks for the processing circuit according to the determination of the type of power source,

wherein a data transfer rate is set according to the type of power source.

18. The method according to claim 17 further comprising:

determining whether an external power source is connected, and

when it is determined that an external power source is connected, increasing the amount of current and setting a faster clock, so that high speed data transfer is carried out, and

when it is determined that no external power source is connected, reducing the amount of current and setting a slower clock, so that slow speed data transfer is carried out.

19. The interface circuit according to claim 18, further comprising operating as a USB ver. 2.0 interface circuit when an external power source

is connected, and operating as a USB ver. 1.1 interface circuit when no external power source is connected.

A3
and

20. The interface circuit according to claim 19, further comprising registering the interface circuit as a USB ver. 2.0 interface circuit in a computer connected thereto when an external power source is connected, and registering the interface circuit as a ver. 1.1 interface circuit when no external source is connected.
